WHAT IS CLAIMED IS:

1. A rotation locking device in an appliance having a body, the rotation locking device being located in the area of two separate, independent first and second shafts in the appliance for preventing undesired rotation of a shaft and comprising:

an indented displacement surface on said first shaft; and

a locking pin which rests on said displacement surface when in a non-locking position, and is displaced radially of the first shaft by undesired rotation of the second shaft, and is pressed against a non-rotating part of the appliance.

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- 2. A rotation locking device according to claim 1, further comprising a locking bush extending about at least a portion of a shaft, said bush having a cut-out therein, and said locking pin is located in said cut-out.
- 3. A rotation locking device according to claim 2, wherein said locking bush is secured to said second shaft.
 - 4. A rotation locking device according to claim 3, wherein said locking bush has a guide groove formed therein and a pin is connected to said first shaft, which pin moves in said guide groove.
 - 5. A rotation locking device according to claim 1 wherein said non-rotating part has an indentation formed therein to receive a portion of said locking pin when said locking pin is displaced radially of the said first shaft.

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6. A rotation locking device according to claim 1, wherein said appliance comprises a handpiece used in medical procedures.

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- 7. A rotation locking device according to claim 1, wherein said appliance comprises a contra-angle used in dental treatment.
- 8. A rotation locking device according to claim 1 wherein the rotation locking device forms part of a gearbox in the applicance.